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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,500	09/21/2005	Stuart McIntyre	62765(50024)	1438

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EXAMINER

MARTINO, MICHAEL N

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/522,500

Applicant(s)

MCINTYRE, STUART

Examiner

Michael N. Martino

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/21/06</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because of improper cross-hatching symbols. Specifically, the liner and liner connector, being made of plastic, ought to use the appropriate symbol to indicate such. Also, are the seals metallic as presently indicated? If not, the appropriate symbols to indicate their material are required (see MPEP §608.02 IX).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

2. Claims 9-12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. They are dependent on claim 8, drawn to a pipe liner connector, however each of the dependent claims 9-12 begins with "A pipe *liner* as claimed in Claim ____" and is not

further limiting to the "pipe liner *connector*" to which they depend as such because these claims do not include all the limitations of claim 8.

Claim 3 is also objected to because of the phrase "or a similar heat inducing processes" (sic). In particular, the alternative language recitation results in a broad recitation within a narrow recitation and raises the question of whether or not welding is being required. Further, it is not known what is considered to constitute a "similar" heat inducing process.

Appropriate correction of the above noted ambiguities is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Cruickshank (US 5,988,691).

Regarding claim 1, Cruickshank teaches a pipe liner connector (Figs 3 and 4) suitable for use with connected pipe sections (10, 12) having an internal liner (14, 16), the pipe liner connector comprising a substantially cylindrical sleeve (42) having opposed open ends for sealed attachment to the internal liner of the connected pipe sections, and the substantially cylindrical sleeve defining one or more vents (Fig 3, between gap and bore, middle of 42, described in column 6, lines 48-52) for balancing a

pressure differential between a micro-annulus, formed between the internal liner and the connected pipe sections, and a bore defined by the connected pipe sections.

Regarding claim 2, Cruickshank teaches a pipe liner connector as claimed in Claim 1 wherein the pipe liner connector further comprises a shielding ring (22 at 41) located between the opposed open ends.

Regarding claim 3, Cruickshank teaches a pipe liner connector as claimed in Claim 2 wherein the shielding ring is heat resistant so as to protect the pipe liner connector from welding or similar heat inducing processes (column 2, lines 30-32).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cruickshank as applied to claims 1-3 above, and further in view of Press et al (US 4,681,349).

Regarding claim 4, Cruickshank teaches a pipe liner connector as claimed in Claim 1 wherein an open end comprises a diametrically increased ring section (left or right of gap in middle of 42) longitudinally displaced from the open end towards the opposed open end, but does not show said ring section as having one or more venting grooves located on an outer surface thereof and extending longitudinally thereon.

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Press et al teach the provision of a venting groove (100, Fig 25). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the increased diameter ring section of Cruickshank with a venting groove as taught by Press et al for the purpose of balancing pressure between the micro-annulus and the bore.

Regarding claims 5, 9, and 11, Cruickshank teaches a pipe liner connector wherein the (first or second) open end further comprises one or more seals (110) located between the open end and the ring section and the open end having a diameter intermediate of the cylindrical sleeve and the ring section.

Regarding claim 6, Cruickshank teaches a pipe liner connector as claimed in Claim 5 wherein the one or more seals (as 110) provide a liquid tight connection with an internal surface of the internal liner while the ring section engages with an internal surface of the pipe section (see Fig 4, where groove of 42 shown to left of tapered end receives a seal as set forth in column 6, lines 56-59).

Regarding claim 7, Cruickshank teaches a pipe liner connector wherein an open end comprises one or more circumferential grooves (as 106, threads being synonymous with grooves) suitable for receiving an adhesive and a second vent (190) located between the one or more circumferential grooves and the open end. Though an adhesive is not explicitly disclosed, the use of thread sealants is well known per se and conventionally used (thread sealant is here construed as synonymous with adhesive). It would have been obvious to one of ordinary skill in the art at the time of the invention to

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provide the threads of Cruickshank with thread sealant for the purpose of sealing the connection and/or retaining the sleeve between the liner ends more permanently.

Regarding claims 8 and 10, Cruickshank teaches a pipe liner connector (Figs 3 and 4) for use with a pipe having an internal liner (14, 16), the pipe liner connector comprising a substantially cylindrical sleeve (42) having opposed first and second open ends, wherein the first (and second) open end comprises a first (and second) diametrically increased ring section (left or right of gap in middle of 42) longitudinally displaced from the first open end towards the second open end (and vice versa), but does not teach that said ring section has one or more venting grooves located on an outer surface thereof and extending longitudinally thereon. Press et al set forth a venting groove (100, Fig 25). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the increased diameter ring section of Cruickshank with the venting groove as taught by Press et al for the purpose of balancing pressure between the micro-annulus and the bore.

Regarding claim 12, Cruickshank teaches that the pipe liner connector further comprises a shielding ring (portion of 22 between ring sections at 41 of Cruickshank) located between the first and second ring sections.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 2,366,579 Von Ahrens; cited for its shielding ring.

US 2,646,995 Thompson; cited for its shielding portion and diametrically increased ring portions.

US 4,357,745 Chlebowski; cited for its recessed liner ends, sleeve with vent, shielding portion, and constant bore diameter.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael N. Martino whose telephone number is 571-272-7480. The examiner can normally be reached on 7:00am to 3:30pm, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael N. Martino
10/24/06

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